

Claims

What is claimed:

- 1 1. A method for calculating the amount of marking material
2 required to print a print job, comprising the steps of:
3 transmitting a print job to a server;
4 copying the print job; and
5 as a first task:
6 processing the print job including at least selecting an image-forming
7 device for the print job; and
8 transmitting the print job to the selected image-forming device; and
9 as a second, separate task utilizing the copy of the print job, calculating the
10 amount of marking material required to print the print job.
- 1 2. The method of Claim 1 wherein the print job is converted to a
2 universal file format file prior to being transmitted to the server.
- 1 3. The method of Claim 2 wherein the step of calculating the
2 amount of marking material required to print the print job includes the steps of:
3 converting the copy of the universal file format file to raster data;
4 counting the number of image elements contained in the print job; and
5 calculating the amount of marking material required to print the print job
6 using a known amount of marking material for printing an individual image element.
- 1 4. The method of Claim 2 wherein the universal file format
2 comprises Portable Document Format.
- 1 5. The method of Claim 2 wherein the step of processing the print
2 job includes converting the universal file format file to a page description language
3 (PDL) file.
- 1 6. The method of Claim 1 wherein the step of calculating the

amount of marking material required to print the print job includes the steps of:
converting the copy of the print job to raster data;
counting the number of image elements contained in the print job; and
calculating the amount of marking material required to print the print
job using a known amount of marking material for printing an individual image
element.

7. The method of Claim 1 wherein the first and second tasks are
performed by the server in parallel.

8. The method of Claim 1 wherein the second task is performed
by the server in the server background.

9. The method of Claim 1 wherein the marking material comprises
toner for use in a laser printer.

10. The method of Claim 1 wherein the marking material comprises
ink for use in an ink jet printer.

11. In a computer network including a host computer, a print server
and at least one image-forming device wherein a marking material is used for
creating images on a print media, a method for calculating the amount of marking
material required to print a print job submitted by a user, comprising the steps of:

converting a print job to a universal file format file;

transmitting a the universal file format file to a print server;

copying the universal file format file; and

as a first task:

converting the universal file format file to a page description language
(PDL) file;

processing the print job PDL file including at least selecting an image-
forming device for the print job; and

transmitting the print job to the selected image-forming device; and

14 as a second, separate task utilizing the copy of the universal file format file:
 15 converting the universal file format file to raster data;
 16 counting the number of image elements contained in the print job; and
 17 calculating the amount of marking material required to print the print
 18 job using a predetermined amount of marking material for printing an
 19 individual image element.

1 12. The method of Claim 11 wherein the first and second tasks are
 2 performed by the server in parallel.

1 13. The method of Claim 11 wherein the second task is performed
 2 by the server in the server background.

1 14. The method of Claim 11 wherein the marking material
 2 comprises toner for use in a laser printer.

1 15. The method of Claim 11 wherein the marking material
 2 comprises ink for use in an ink jet printer.

1 16. In a computer network, a print server comprising:
 2 copying means for copying a received print job;
 3 a calculation module adapted to calculate, using the copied print job,
 4 the amount of marking material required to print the print job; and
 5 processing circuitry for processing the print job and transmitting the
 6 processed print job to a desired imaging device.

1 17. The print server of Claim 16 wherein the received print job
 2 comprises print data file having a universal file format.

1 18. The print server of Claim 17 further comprising a file conversion
 2 module for converting universal file format print data file to a page description
 3 language file associated with the desired imaging device.

1 19. The print server of Claim 16 wherein the marking material
2 comprises toner for use in a laser printer.

1 20. The print server of Claim 16 wherein the marking material
2 comprises ink for use in an ink jet printer.

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